

ETAAC Advanced Technology Development Report Outline discussion draft 7-9-09

1) Technology Development Pathway Challenges

- Technology development efforts are needed now to create the technologies needed here and elsewhere
 - Development process & lead-time, long-lifespan conventional infrastructure, need to achieve dramatic GHG goals
 - Also need to achieve economic and environmental co-benefits
- Barriers Assessment – updated blue chart & highest priorities identified by ETAAC members
 - Including up front capital costs, externalities, “Valley of Death” for commercialization stage, approval processes, information gaps, infrastructure

2) Relevant Lessons Learned from Policies and Programs to overcome barriers

- US DOE, US EPA, national labs
- California – South Coast AQMD technology advancement program, BAAQMD, Prop 118, PIER, CALSTART
- Europe, Asia –UK Carbon Trust, Germany, Japan, China

3) Existing ETAAC report technology areas – green chart

- Summarize & update key points
- Relevant new federal funding, where there are remaining gaps
 - Examples: electricity storage, some transportation policies not covered at federal level
- Relevant federal funding, where CA can help direct and/or compete for federal resources
 - Examples: Investing in CA transportation electrification increases GHG benefits due to CA low-carbon electricity; while CA may have specialized needs due to ambitious renewable energy goals

4) Additional steps needed to develop advanced technologies needed to meet California GHG goals

- Examples include plug-in hybrid and battery/ fuel cell full electric drive vehicles, electricity storage to enable higher levels of renewables, others identified by ETAAC based on existing ETAAC report and AB32 scoping plan.